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## A DIALOGUE BETWEEN AN IDEALIST AND A NATURALIST.

**N**ATURALIST: So you think that if I had paid sufficient attention to the teachings of pure idealism I would have gladly adopted it as my philosophical creed. You say that most professional philosophers, and many prominent scientific thinkers, physicists and even biologists, have found idealism to afford the most satisfactory interpretation of nature. I readily admit that materialistic and mechanistic views, so long in the ascendant among naturalists, are superficial and fictitious, and have definitely proved to be untenable. Nevertheless the duality of body and mind, under the name of psycho-physical parallelism, is still widely maintained by thoughtful psychical as well as physical investigators. This proves that no kind of scientific monism has yet decisively triumphed, and that the momentous contention between realistic idealism and realistic naturalism is far from being settled.

The vexed question, I think, turns upon whether body is rightly conceived as a mere appearance in mind, or whether, on the contrary, mind itself is an outcome of bodily activity. Are we, all in all, products of mind; or the reverse, are we, all in all, products of bodily organization? This seems to me the decisive question, whose correct answer will disclose for good our true position in this world, of which we are as yet by no means certain, and will serve us as supreme guidance for rational con-

duct in life, at present in some respects still irrationally erratic.

*Idealist.* It seems to me almost impossible not to recognize, when once clearly pointed out, that the content of consciousness, composed, as it is, exclusively of mental phenomena, is all we are actually aware of. It is obviously our only source of information. Moreover we move and act entirely within its purely mental sphere among its mental representations, urged thereto by mental feelings. We get to know ourselves, and what is called the external world solely through conscious or mental manifestation, through feelings, sensations, perceptions, conceptions and emotions. Cherished memories, exalted imaginings, all manner of ideals, consist altogether of modes of consciousness. Nature, in fact, has her whole being in consciousness. Is not the nature you seem outwardly to perceive the very identical nature you are inwardly aware of? Her densest bodies, her so-called material constituents, are one and all of purely conscious or mental consistency. They are all composed of sensations or percepts, of nothing but feelings of resistance and visions of shaded and colored forms, outcomes of mind's activity. Howsoever solid-seeming, however much outspread in space, and conceived as enduring in time, all we are conscious of as nature melts impalpably into that universal spiritual solvent known as mind. Nature, its bodily appearances all included, is then clearly out and out a product of mental activity.

*Nat.* It must be conceded that what you say of our vision of nature is true to a great extent, so far as such vision is concerned, and it is also deeply significant. However, as a complete view of nature, it is contrary to what mankind in general has at all times believed, and contrary also to what you and all idealists are relying upon as guidance for conduct in life. Idealism offers itself as a consistent, all-comprising conception of nature. Wholly

mind-woven as it is, it entices its votaries to spurn the firm ground of actual experience, and to soar on wings of fancy to an empyrean filled with visions of all manner of ideal perfections. Such idealistic speculations encounter in their transcendent flight no imperatively resisting obstacles that force them profitably into definite salutary channels. They create for themselves an all but resistless medium by taking uncertain conceptual shadows for the realities which cast them, enabled thereby to roam at will in a chimerical world of thought-engendered fictions.

As to the directly perceptible world, idealism entirely volatilizes it into intangible mental phenomena, or into complete vacuity. Its most eminent champion, the good and great Bishop Berkeley, was consistently led by his logical bent to the startling conclusion, that each time the world is perceived, each time it appears pictured in an individual mind or spirit, it is newly created, and each time the eyes are shut it is again annihilated. Such a stupendous marvel presupposes an ever reiterated divine fiat; in fact a creation and myriadfold recreation of perceptible nature out of nothing. This would, indeed be necessarily the case, if perceptible nature had no other existence, save in the mind of the percipient actually aware of it; this means if perceptions, as Berkeley believed, were indeed identical with real being. And taking for granted an omnipotent creator, as Berkeley, the theologian, was bound to do, why could not such almighty power create ever anew the vision of nature in each of us whenever we open our eyes? But quite apart from theological speculations it may be safely asserted that our vision of nature is actually annihilated whenever we shut our eyes, and recreated whenever we reopen them.

Contemplate this most familiar and undeniable occurrence and you will find it whenever and in whomsoever it occurs to be a creative marvel more wonderful by far

than anything currently taught about creation. Here a most subtle, light-woven influence works its secret charm upon our open eyes, and lo! instantly, magically we are conscious of the whole wide form-filled expanse of the great outside world. Idealism hardly touches upon the secret of this ever renewed creation of the visible world, providentially ready to meet and satisfy our needs and desires. And how pitiously dependent are we from moment to moment on what is offered by sense-revealed nature, wherewith to gratify our wants, and to realize our aspirations.

*Id.* Is it not quite obvious here, that pre-existing mental endowment underlies the sudden appearance of what is called the external world? If it did not pre-exist in mind it could not possibly come into existence by so trifling an action on our part as the opening of our eyes, an action moreover entirely subject to capricious volition. It would indeed be nothing short of a myriadfold most stupendous miracle if an intangible momentary influence affecting our eyes from outside were to carry with it the entire external world ready-made. Instead of having recourse with Berkeley to the miraculous intervention of an ubiquitous theological agency, in order to explain the ever renewed creation of the percipient's vision of an external world, it is far more simple and convincing to conclude that on opening our eyes this vision is flashed into awareness by the activity of the percipient's own mind, in which it has its permanent dwelling-place. This conclusion is rendered quite certain by the fact that the objects and occurrences of the so-called external world appear most vividly also in dreams while our eyes are closed to outside influences. You cannot but acknowledge that nature, as we know it, is altogether inherent in mind, and that it consequently receives its true interpretation in pure idealism.

*Nat.* You will never succeed in convincing unsophisti-

cated mankind, that no influence from outside man's own circumscribed individuality is here operative. If normal human beings open their eyes in complete darkness no external world becomes at all visible. Not the least change takes place in their own constitution and attitude between the opening of their eyes in darkness, and their opening them in illuminated surroundings. Yet what an all-important difference it makes to them! In the latter case there flashes into awareness the visible world with all its objects of more or less vital interest to us; in the former instance our vision remains empty of all content. It is very evident here, that this thoroughgoing difference is not brought about by any influence emanating from our own mind. The inevitable conclusion is then, that the influence which has wrought this revealing change must have reached us from outside, and that empty darkness can be only due to the exclusion of this external influence. Luminous space is our fundamental visual sensation incited by the influence of what are called etherial vibrations upon our open eyes, and the shaded and colored forms which appear therein are definite determinations of such luminous space corresponding to definite specifications of the inciting vibrations. Without reference to outside influences no sense can be made of the all-revealing conscious content.

In further elucidation of the insufficiency of pure idealism try yourself to believe that, for instance, no dead body is left behind when consciousness, mind, spirit, soul, life have ceased to animate it. Will it ever sincerely satisfy the sound and sober sense of any person to have speculatively demonstrated to him, that after death there remains extant no such thing as the dead body of his friend, save as it exists in his mind as his own percept; nay as it exists in the mind of any number of beholders as each one's own

percept, and therefore as ever so many bodies of the same friend?

Of course a consistent idealist will at once object, will have to object, that there exist in reality no other persons anywhere outside the mind that is actually aware of them as forming part of its own all-containing conscious content. And it is quite true that persons as mentally perceived have no other existence save in the conscious content in which they appear. This specious idealistic half-truth, besides leading to solipsistic nihilism, has seduced many a thinker to conclude that there exists in reality no individual mind, neither a mind exclusively belonging to you nor to any other human being, but solely one indivisible, eternal Mind or Spirit, in whose all-comprising Being everything perceived and conceived in reality exists.

*Id.* Well, and why not? Have not thinkers of highest repute reached this very conclusion? Is not this the essential teaching of panlogism, and indeed of all pantheistic creeds of idealistic cast? Have not many foremost philosophers, and also great poets, mystics and theologians, found intellectual and emotional satisfaction in just such a creed? Since Anaxagoras and the divine Plato attributed supreme reality to reason, have not most lofty-minded thinkers thought to recognize beyond all limitations of time and space pure reason as the norm of truth, and as essence of eternal being; while to them the sense-apparent world seemed a mere illusive play of phenomenal appearances?

*Nat.* Quite so, but only because these eminent thinkers and dreamers failed to realize the utter insubstantiality and evanescence of all mental modes, the fleeting phenomenality of our entire actual awareness, wherein everything of ideal or mental consistency has its transitory being. Rightly considered there is no such perduring substance or entity as consciousness or mind is supposed to be. We

are actually aware only of arising, dwindling and vanishing conscious phenomena, bearing a distinctly specific character and significant practical meaning. But we are nowise aware of such a collective enduring entity as self-rounded consciousness or mind would have to be as comprising and issuing matrix of them all. Our moment of actual awareness constitutes what we know as the present in radical contradistinction of what we know as the past and the future. The past has vanished for evermore; the future has not yet come to be. In present awareness is revealed all that belongs to ourselves, and all that belongs to the world at large. It needs but a moment's consideration to realize this momentous fact of conscious revelation. Our present moment of awareness, our actual conscious content, is therefore, as indeed generally admitted by philosophers, our only source of information. Notwithstanding it is evidently as transitory and lapsing as time itself, whose perpetual flux it fills with a medley of ever renewed mental phenomena. Or rather its own perpetual flux on a steadfast background of memorized experience and of physical regularities gives rise to our conception of time. The seeming endurance of some of these mental phenomena is altogether illusive. They are without exception fleeting and evanescent, and form only for the time being the appearances that make up the transitory conscious content, passing through awareness in a continuous stream, emerging into it and seeming to endure therein only by being uninterruptedly replaced by a new influx of more or less similar modes. In no two moments of time is the conscious content identically the same. No modicum of self-enduring consistency attaches to anything of conscious or mental consistency. All mental phenomena are as such but rainbowlike appearances. The seeming steadfastness of the world figured in visual perception rests in phenomenal repose on a foil of ceaseless change.



*Id.* The considerations you are bringing forward against pure idealism are only common sense apprehensions that are effectively dispelled by thought proving that the perceptual appearances which in random and fragmentary glimpses are projecting into awareness the semblance of an external world are but an illusive mirage distortedly reflected from the eternal plenary space of the intelligible world, where genuine reality is constituted by reason alone. Is not the conception of what we hold to be true reality the *recognition* of an eternal normative realm of spiritual existence, where veritable being consists in a rationally all-inclusive idea, in an eternal *nunc stans* of reason's unified archetypal concepts? Is not our own intuition of universally valid truth, our ideal of justice, love, beauty, inspired by a transcendent forecast and longing for perfection, for reunion beyond all vicissitudes of this temporal existence with ever unchangeable all-sufficient Being?

*Nat.* Yes! that which constitutes genuine truth cannot be but out and out rational. The random, fragmentary appearances which arise within awareness have to be synthetically worked up into rational consistency, into harmonious agreement with previous experience, before they can afford any reliable information or inspiration. When and by what means does such an enduring synthetical unification take place? "How are synthetical propositions possible?" It is but a poor account that pure idealism can give of this momentous occurrence. Deprive its spiritual idea of sense-derived experience, or its perceptual phenomena of reference to extra-conscious existence, and you empty it of all objective reality, reduce it, in fact, to a senseless, meaningless nothing. This sweeping assertion cannot be refuted by ever so ingenious argumentation. It is all too positively evidenced by direct experience.

Kant after life-long profound contemplation declared emphatically in opposition to all modes of pure idealism,

that concepts remain empty of content if not supplied by outside influences with sense-material, supplied with the vivid appearances which arise in time and space as given raw-material of knowledge. Kant labored most assiduously to unify the seemingly disparate worlds of sense and intellect, the *mundus sensibilis* with the *mundus intelligibilis*. Influenced by Hume he made another most laborious attempt to accomplish this perennial task. He sought to restore the sensible world to its rightful share in the makeup of knowledge, a share of which it had been completely deprived by Leibnitz, whose philosophy was then dominant in Germany. But by admitting the existence of a causative intelligible world, where we human individuals were held to have our real being as "intelligible egos," and where a universal consciousness was believed to be the bearer and apperceiver of the synthetical unity of all that is empirically experienced; by admitting these transcendent intelligible potencies Kant became, contrary to his intention, the founder of pure intellectual or spiritual idealism. And by admitting a power of free moral causation as endowment of the intelligible ego he became also the founder of pure volitional idealism.

However, in order to prove irrefutably the essential part sense-imparted experience really plays in the constitution of knowledge, and the utter impotence of thought without having been first informed by it, we are not dependent on mere reasoning from psychological data. Positive demonstration that sense-derived experience furnishes the material which makes up the content of conceptual thought is unmistakably afforded by the blind, the deaf and preeminently so by the blind and deaf. It cannot be denied that the congenitally blind have no knowledge, no cognizance whatever of the world normally revealed in vision; the congenitally deaf no cognizance of that revealed in sound. All that fills our moment of awareness with the

rich content of visible and audible information regarding the means of satisfying life's needful requirements, and regarding its objects of delight and terror, all this sensorially accruing knowledge is wholly non-existent to beings devoid of sight and hearing. Not only this plain evidence of the dependence of concepts for their content upon sensorial experience, but further decisive proof of the indispensableness of sense-derived experience in the development and manifestation of intelligence in each separate human individual is afforded by language.

Deaf persons, linguistically untaught remain in consequence all through life in a state of imbecility. Being shut out from the world of sound, no linguistic vocal signs can convey to them the discriminative distinctions and apprehended significance of such experience as is not merely subservient to animal needs and desires. It is certain that without the knowledge and use of linguistic signs of some sort there can be no thinking, and consequently no intelligence of the conceptual kind. Thought and language are inseparably bound up with each other, are wholly interdependent. Here, then, is another fundamental fact of actual experience for philosophical contemplation to probe, in order to penetrate more deeply and truthfully into the secret of the relation of conception to perception, of that of mind to body, of the dependence of intelligence on a social medium. No human being becomes intelligent before having been first taught the linguistic vocal signs, or some equivalent for them, current in the social community to which he belongs. This is as much as to say, there exists no human being, no thinking and talking biped, no intelligent creature whatever, outside the social circle into which he is born, or in which he has been brought up. With such positive experience, with such irrefutable foundation to reason from, it is surely egregiously misleading and fanciful to assume any kind of intelligence or reason

that can exist outside a definite social community, and ignorant of linguistic signs socially inculcated. A human being becomes human as radically distinguished from other living creatures chiefly, nay almost exclusively, by the acquisition of linguistic signs, which invest him with the power of thinking. No thought, no intelligence without socially acquired speech. This obvious truth is daily taught by direct experience. And candidly attending to it, what venerable philosophical aircastles dissolve into nonentity!

*Id.* It is surely contrary to all reason to maintain that by learning some kind of linguistic signs socially agreed upon one develops from a state of mere unthinking, instinctive animality into an intelligent human being. Who can believe that intelligence or reason can possibly be engendered by so slight and casual a cause? If our mental nature failed to be rational in itself, to be innately endowed with intelligence before we get to learn linguistic signs, we should certainly remain all through life as thoughtless as other animals. A parrot does not become a thoughtful animal by learning to utter linguistic signs.

*Nat.* What you contend for is quite true. Without innate endowment of potential intelligence no actual intelligence could possibly be developed by learning linguistic signs. But, on the other hand, all potential endowment of intelligence remains sterile without being fertilized and actualized by language.

It has to be insisted upon that idealism furnishes but a superficial interpretation of such marvelous manifestations as the sudden vision of an external world on opening our eyes, or the development of actual intelligence by means of linguistic signs. Intelligence is nowise an *a priori* attribute belonging to mind, as a "thinking substance." On scientific investigation those marvelous manifestations are found to be achieved results of endless vital toil leading to progressive organization. In the light of biological

knowledge mental phenomena are final outcomes of this organizing process. They are supreme resultants of æons of vital travail, perceptively evinced in the phyletically organized structures underlying them.

Mental phenomena can rightly be called mental only when they appear as consciously present. When they are not present as conscious they have ceased to be mental, and are wrongly conceived to be still mentally subsisting in latency by puzzled idealists in search of something substantially enduring to build their systems with. It is obvious, on the other hand, that mental phenomena after having vanished out of conscious awareness are somehow reproduced from an extra-conscious matrix. The flow in time of arising and vanishing mental phenomena as consciously manifest must evidently issue from some permanent source. And as mental phenomena carry with them former experience now memorized, it follows that such former experience must have been potentially preserved in some retaining mould, much as the voice is latently retained in a phonograph. Only here the organic mould is a vitally active retainer that assimilates newly acquired experience with such as had been previously revealed, deepening and amplifying former information. What is so glibly called "memory," wherein is consciously resuscitated in momentary awareness the latently retained experience of our lifetime must necessarily dwell in some perduring extra-conscious matrix potentially harboring it. Such a matrix has consequently to possess the attributes universally ascribed to what is philosophically called "substance." It has namely to remain itself identically intact and functionally efficient, while nevertheless emitting the sundry manifestations that appear in conscious awareness. This substance being the inexhaustible source of conscious phenomena has to combine in itself the logically contradictory and yet logically desiderated attributes of

unchangeableness and change; has, in fact, to consist of an underlying entity which remains itself identically unchanged, being nevertheless the source of the flow of endless changing modes. It cannot be denied that it is logically incomprehensible how anything can be the source of the flow of manifold occurrences without changing and spending itself in so doing.

The conception of such an identically abiding substance which is nevertheless the source of the changeful manifold, lies at the root of all metaphysics. All attempts at interpreting nature have assumed as foundation to reason from some such identically enduring substance. Not to mention the many ingenious devices resorted to by ancient sages of all civilized lands and times in order plausibly to evolve the many from the one, modern philosophy to the present day has been mainly concerned with this logically and dialectically insoluble problem. In their perplexity at not being able to discover the desiderated substance in nature, thinkers were led to assume some kind of fictitious entity to do service for it. The outright dogmatism of such an arbitrary procedure becomes evident in Kant's *a priori* definition of substance, "*In allem Wechsel der Erscheinungen beharret die Substanz*," Amid all change of what appears the substance endures. And he significantly added: "Its quantity in nature neither diminishes nor augments." This addition was evidently formulated in order to state *a priori* that the desiderated substance must not itself be spent in giving rise to what successively appears as the content of time and space. Kant tells us plainly what a genuine substance ought to combine in itself; namely: "*die entgegengesetzten Bestimmungen*," the contradictory determinations of preserved identity amid change.

It may well be asked if any of the assumed underlying substances of philosophers really combine in themselves logically contradictory determinations. They generally as-

sume as underlying substance some identically abiding First Cause, *causa sui*, as Spinoza expresses this cutting of the Gordian knot of philosophy. The assumption is, however, something unthinkable, for under "causation" is rightly understood a sequence of effected events without conceivable beginning or end. Here our human understanding stands baffled by losing itself into infinity both ways. Such a fictitiously posited First Cause is then conceived, either as an omnipotent personality, or as eternal intelligence, reason, absolute idea or substance, or as the Absolute outright, as the mystic Nothing from which everything proceeds, as psychical *actus purus*, *Urgrund*, indestructible matter eternally driven into changeful forms by indestructible motion, and lately also as all-efficient protean energy. These are the principal first causes that have been hypothetically substantialized into permanency to serve in turn as identically enduring matrix, whence the experienced phenomena may be made plausibly to issue into manifest existence.

After all these vain attempts to discover the genuine substance, which in reality combines in itself the logically contradictory attributes of unchangeableness and change, philosophers will have to apply to biology for solution of this eminently momentous puzzle. Then only will they receive the real experiential groundwork, which will enable them effectively and validly to reason regarding the evolution of the problem of the many from the one, of the changeful manifold from an identically abiding matrix, of the succession of mental phenomena from a vitally active source. It has to be emphatically declared that solely in the *perceptible* living organism,—not in its mentally *perceptual* representation—is to be found in our world the veritable substance that remains itself identical, while emitting all the changeful phenomena of the conscious content.

*Id.* So after all you side with the materialists who be-

lieve that it is our body that thinks, that certain molecular agitations of brain-substance give rise to mental phenomena, and are thus their efficient cause. From what you previously admitted it seemed that you accepted Berkeley's idealism, in so far at least as it proved the non-existence of such an entity as a material body. Surely what is perceived as our body or organism consists in verity altogether of a group of sensations, principally tactual and visual.

*Nat.* Quite so, but how does it happen that the body or organism of this dog, for instance, forms at the same time part of your conscious content as well as of mine? You will hardly deny what is universally acknowledged, namely that one and the same thing or individuated object cannot be in two places at the same time. Moreover, it is certain that I cannot touch or see the perceptual dog forming part of your conscious content, nor can you that forming part of my conscious content. Evidently then your percept of the dog or mine cannot possibly be operative in causing either of us to perceive the real dog, which neither you nor I can well deny that we distinctly perceive. Nor could each of any number of beholders deny that he likewise perceives pictured in his conscious content the percept of the same dog. Should you, however, nevertheless deny the existence of such numerous percepts of the same dog in numerous percipients, and that any real dog exists save the one appearing in your own conscious content, it would consistently force you also to deny my existence outside your conscious content, a preposterous and untenable position, although necessarily held by pure idealism. For without touching, seeing, and hearing me you would be wholly unaware of my existence, and could therefore not perceive me as forming part of your conscious content. It is a positive fact that the conscious phenomena arising in the conscious content of any individual cannot be perceived by any other individual; while, on the contrary many other



individuals can simultaneously perceive the same real body in the same objective place. This proves that the nature of the real body differs in consistency and actuating power entirely from anything mental. The irresistible conclusion here is, that the body, thus perceptible to many beholders, forms part of an extra-conscious, non-mental world which possesses the power to compel its perceptual representation to arise in the conscious content of whomever is in a position to behold it. That the real extra-conscious world is sense-revealed, and not a mere mental product is unmistakably demonstrated, as previously shown, by the congenitally blind and deaf.

The apparently mysterious fact, that the extra-conscious, but perceptible world is found to correspond to its perceptual representation, constitutes another problem that no conceptual reasoning can in the least degree elucidate, while biology is in a position to furnish at least a proximately satisfactory and scientifically valid explanation of it.

*Id.* It is indeed obvious that mental phenomena are not sensorially perceptible, that one cannot touch with hands or see with eyes any feeling, sensation, percept, thought, or conscious emotion. Transcendental idealism will unhesitatingly agree to this, as it can consistently admit only one single, all-comprising mental content as sole reality. It has to be confessed, however, that it seems to have been made good in this discussion, that externally incited, sense-derived experience, memorized and symbolically synthesized, goes to make up the content of concepts. This experientially demonstrated fact, I am afraid cannot be argued away. If so, it seals with thinkers, who candidly ponder it, the fate of pure idealism, as pretending to be a sufficient interpretation of nature.

But admitting the bare existence of a real extra-conscious world, we evidently do not know its real nature, but only its perceptual representation in the conscious con-

tent. And therewith the real nature of what underlies our sensorial susceptibilities remains unknown. We only become aware of their organized embodiment perceptually revealed as our organs of sense. The real nature of the extra-conscious world, whose intrinsic powers compel definite percepts to arise in our conscious content, remains as enigmatic as that of Kant's things-in-themselves, or Berkeley's divine *fiat*.

*Nat.* It must, indeed, be quite incomprehensible to thinkers unacquainted with biological results, how the perceptual world arising in conscious awareness has come to symbolically represent, and significantly to correspond to an incommensurable extra-conscious world vicariously revealed mainly through an etherial influence affecting our vision. Here a plain remark may serve to disentangle incongruent problems, the mixing up of which has sorely confused philosophers of all times. The problem of the inner and vital conditions that underlie the arising of mental phenomena is of an entirely different order from the problem of the real nature of the extra-conscious, sense-compelling world, and its conative and cognitive significance to our individual needs and desires; and this again is of a different order from the weighty problem of memorizing, by which process inner and outer impressions, carrying with them unconscious and conscious experience vitally and emotionally needful to our existence, become organically blended and latently retained.

As our real perceptible organism forms itself part of the great extra-conscious, power-endowed world, and also underlies functionally our vital and purposive activities, and is besides the bearer of the significantly memorized and synthetically unified mental phenomena, the three otherwise separate incongruent conditions and influences combine here to give rise to the all-revealing conscious content.

Biological research is a laborious pursuit requiring

close observation and persevering application; moreover a single-minded, unbiased desire to correctly interpret compulsory sense-phenomena directly given or experimentally made to appear. In contrast with such scrupulously ascertained truth regarding natural facts and occurrences to reason from, the general method of philosophizing has essentially consisted in reasoning from randomly gathered and intuitively generalized experience, or even from mere imaginary conceptions arbitrarily postulated. The many philosophical failures to rightly account for natural occurrences are principally due to the ascribing of substantiality and efficiency to mental phenomena, which are, in verity, all forceless and evanescent. Nothing mental, it has again to be insisted upon, possesses as such any modicum of substantiality, or causative efficiency. And here we have above all to recognize that what we call our intelligence, pre-eminently a manifestation of mentality, is powerless to add the least efficacy or to impart any kind of new property to nature and its perceptible constituents. It can, however, designedly devise for them new opportunities, by which they are placed through the volitional activity of our extra-conscious being in positions to display properties and powers hitherto latent and potential only. Intelligence can furthermore inventively render natural properties and efficiencies subservient to our lower and higher needs and desires.

Having in mind the three essential problems, whose correct solution alone can furnish the true foundation for a valid interpretation of nature, let us test in this respect the thought of recognized leaders of the two different idealistic ways of interpreting it.

Kant, perhaps the most circumspect and painstaking of modern thinkers, as regards the first problem completely ignored the part vital organization plays in the synthesis of sensorial, and in fact of all experience. He held all syn-

thesis to be the function of what he called *a priori* categories of the understanding. These categories are, however, in verity, mere abstract generalizations of experienced connections between succeeding and coexisting natural phenomena. Being mere concepts, they are themselves entirely impotent, and have in Kant's system to borrow their alleged functional efficiency from an imagined supernatural, power-endowed realm of noumenal existents, of which our own real being under the name of "intelligible ego" is believed to form part, and to exert moreover a power of free moral causation, enabling it to initiate from its timeless and spaceless dwelling-place effective changes in our time-and-space world.

With regard to the second problem, by not recognizing the manner by which existents of the extra-conscious world—called by Kant "things-in-themselves"—are and have become empowered to cause definite sensorial appearances to arise in the conscious content,—in his language to fill time and space, our empty forms of intuitive receptivity, with unsynthesized sensorial raw material—he left this all-important occurrence wholly unexplained, taking no further notice of this unremitting effective connection between the extra-conscious world and the world of conscious awareness. Therewith he entirely shut himself up in the magic circle of mere subjective consciousness, a position which consistently thought out leads inevitably to pure solipsistic idealism. Or admitting, inconsistently however, a plurality of other subjective consciousnesses, it leads to Leibnitzian monadology. From this hopeless and helpless imprisonment in his own solitary phantom-peopled self, Kant sought to extricate himself by evoking assistance from his imagined intelligible world, calling upon it to impart objectifying efficiency to his otherwise impotent subjective categories.

The third problem Kant circumvented by leaving un-

explained how newly acquired experience really happens to become latently preserved and memorized, potentially ready on occasion to issue as consciously resuscitated into actual awareness. He recognized that the perpetual flux of time carries away with it its entire freight of conscious phenomena. This being so, this transitoriness and evanescence can obviously not be arrested and permanently fixed, nor its content registered, by any purely mental process. Consequently without some non-mental preserving matrix there could exist for us no past and no future. The whole world we are now consciously aware of would have never come into existence. All accruing experience, if such could take place, would instantly vanish into complete oblivion. Of such paramount importance is the biological fact of memorizing.

Hume, and with him all nominalistic or subjective idealists and associationists make the interpretation of nature an easy task for themselves. They simply ignore the existence of an extra-conscious, power-endowed world, and invent, to begin with, the building material wherewith to erect their philosophical air-castles, working with nothing but transitory feelings of more than doubtful individual existence. These they arbitrarily substantialize into enduring existence, and set about mentally to construct with them what they declare to be the real world. The real world they in all seriousness believe to have been put together by combination or rather aggregation of the flimsy, fleeting mental atoms called by them "sensations" or "impressions." Such vivid sensations or impressions are thus held to arise in actual individual awareness as given in an entirely mysterious way. Thereupon they are believed to be retained as memorized in extra-conscious latency eventually to be summoned into consciousness as faintly reproduced "ideas" that have become by habitual experience associated in definite ways with their vivid prototypes.

To postulate "memory" unexplained as an abiding, extra-conscious matrix, which receives, latently preserves, and on occasion emits into conscious awareness all accrued and all accruing experience is an eminently unscientific procedure which amounts to virtually begging the entire question of mind and its knowledge. The problem of mind, and therewith of memory, can be solved only biologically by recognizing that the world of consciousness is an outcome of vital activity emanating from the perceptible, phylogenetically elaborated entity, revealed in perceptual awareness as the living organism.

*Id.* After all your lengthy exposition it remains still unclear to me how from data of the conscious content, arising subjectively in an individuated being, and admitted to be the only directly given source of information, how from such exclusively subjective mental phenomena, it can be legitimately inferred that an external world really exists independent of that which perceptually appears as such, and that, moreover, our organism and its environment, with all their alleged efficient interactions, consciously forming part of one and the same conscious content, can in an extra-conscious world exist as separate entities. Mind, according to this naturalistic view would then be merely a gradually developed functional outcome of toilsomely elaborated structural organization, and not as idealism, and indeed most philosophers contend, an original, power-endowed, all-comprising entity, having its true home in a purely intelligible sphere.

*Nat.* I thought you had become convinced of the independent existence of an extra-conscious, non-mental world, and that you consequently agreed that idealism is a mistaken position. Possibly your revived doubts as to the correctness of naturalistic views are caused by the fact, that in my defense of them I have mostly presupposed, may be without sufficient demonstration, the existence in

non-mental nature of a plurality of human beings, while it is of the essence of pure idealism not to admit such a plurality. In consequence of it nominalistic idealism, as already stated, leads inevitably to solipsistic phenomenalism; and transcendental idealism has to postulate as sole reality a universal absolute Intelligence or Reason.

The all important contention between the belief of idealism in all-efficient, all-comprising mind, and the belief of naturalism in the independent existence of a non-mental world of power-endowed interacting existents hinges—paradoxically enough—on the demonstration of the real bodily existence of other human beings outside the conscious content in which they perceptually appear. Philosophically speaking such demonstration draws with it the proof of the existence of an “objective,” extra-mental world. It is undeniable that if other human beings consisted really altogether of such mind-stuff as constitutes the conscious content, their appearance in perceptual awareness would be wholly unaccountable. And besides, the vision of perceptual human beings and their movements, when they appear, amounts in any case only to a pantomimic play of insentient phantoms, much as that of human phantoms and their actions projected intangibly into mid-air by means of reflecting mirrors. The significance of the actions of such phantasmal beings, unwilled, unknown and unfelt by themselves, has to be interpreted by the memorized experience of a feeling and understanding spectator. What, then, is the real nature of such a spectator, who cannot be himself a mere perceptual phantom? And where do these phantasmal scenes really take place? Are they perchance mere reflections in individual awareness of what really exists and takes place in a universal consciousness? Such was the reasoned conclusion arrived at by Malebranche, by Kant in early days, as witnessed in the following sentence: “*nempe nos omnia intueri in Deo,*”

and virtually also the conclusion of Berkeley and other thinkers. Transfer speculatively all substantiality and actuating power in nature to a purely intelligible sphere, and this is the necessary logical outcome of the assumption.

But if no human beings really existed save those displaying themselves in universal consciousness, mind or spirit, whence the momentous, multifold significance of all that visually appears to the bearer of the revealing consciousness, who can hardly be denied to be an individual being?

If it can be shown that the perception of other human beings is sense-compelled by outside non-mental influences, then pure idealism has lost its vantage-ground. For its chief contention is to deny all non-mental existence. If a solitary individual percipient neither sees, nor touches, nor hears other human beings, they remain wholly unrevealed to him. He becomes aware of their existence and presence solely by means of sense-compelled percepts. Consequently, without such directly compelled sensorial experience perceptual bodies of other human beings would not arise in his conscious content. When they nevertheless appear independent of any sense-compulsion, as in dreams and hallucinations, they are evidently the outcome of his memorized fund of previous sensorial experience. As no kind of mental phenomena, and certainly no percept, can be seen by means of our visual organs or touched with our tactual organs, or heard with our auditory organs; as they have in fact not the least power to affect our sensorial susceptibilities, we could, as has been repeatedly said, never become aware of other human beings, in case they really consisted of nothing but mind-stuff. We become, however, most distinctly aware of the body of other human beings by means of sense-compulsion. Consequently this their body must necessarily consist of something differing totally



from mind-stuff, which has no power whatever to affect our sensorial susceptibilities. The presence and meaning of the imperceptible mental phenomena arising in the conscious content of sense-revealed human beings we outside observers get, on the other hand, to know only indirectly by means of symbolical physical signs emanating from them, and being interpreted by our own conatural mental experience.

When we consider by what indirect means the real extra-conscious body or organism becomes perceptually revealed: by touch through feelings of resistance, by sight through the vicarious agency of what are called ethereal vibrations, by hearing through the influence of "waves of air," by smell through wafted influences, by taste through chemical affinities; when we consider these indirect sensorial modes by which the existence and characteristics of the extra-conscious world are made to arise in the wholly incommensurable medium of our conscious content, we can form some remote idea how profoundly the sensorially revealed, power-endowed bodily organism, belonging to the extra-conscious world, must differ in its real nature from its forceless, evanescent perceptual representation. This real nature evinces its intrinsic powers in the effects it produces in our world of conscious awareness. The extra-conscious entity perceptually revealed as the living organism is in all reality the substantial being that performs all vital functions, psychical as well as physical.

The real existence of the bodies of other human beings, independent of their perceptual appearance, having, I think, been sufficiently demonstrated, weighty naturalistic conclusions follow therefrom. It is evident, for instance, that the perceptual awareness of my organism and its functions by an outside observer, being a mental phenomenon appearing exclusively in himself, cannot possibly have the least effective influence on what takes place exclusively

in myself. Hence the hypothesis of psychophysical parallelism. The physical aspect is the aspect of the outside observer, the aspect of the physiologist. The corresponding psychical occurrence—imperceptible to the outside observer—takes place in the observed subject. No wonder, then, that the two entirely different experiences, though both mental, respectively occurring in two different beings, run their parallel course without in the least affecting each other. The physiologist perceives as functions of the perceptual organism, which appears in his conscious content, perceptual motions. These he has hitherto interpreted mechanically by wrongly attributing to them forcible actuation, falsely taking motion to be a force-endowed entity, while it is a mere forceless perceptual sign of real activity astir in the real extra-conscious, power-endowed world of creative becoming. And so are all perceived motions in nature mere perceptual signs. Essentially the same sense-compelled percepts, revealing the presence, characteristics, and activities of the real extra-conscious world, make their appearance simultaneously in ever so many beholders, enforcing thus our belief and confidence in their objective significance. The conscious content of the individual, on the other hand, reveals to him the world as it has become synthetically memorized in his own being, and is as such wholly imperceptible to the outsider. In the unitary conscious content of the individual the structurally organized and memorized effects of the two different modes of awareness, the outer and the inner, appear significantly blended as “subject-object,” as subjectively assimilated experience of the perceptible, extra-conscious world and the individual’s own conscious relation to it.

*Id.* It is true that if other human beings consisted bodily—as pure idealism has to maintain—of the percepts which appear in the conscious content of the percipient, there would be consciously extant only the self-knowledge

of the one single monadic or solipsistic percipient, in whose conscious content all other human beings, together with the entire so-called external world, would then miraculously arise as his own perceptual phantom. To posit speculatively a multitude of such monadic percipients as Leibnitz and others have done, in order, I suppose, to hide the monstrosity of denying the existence of other human beings and things is logically absurd. No single monad, not even the central monad of the illustrious Leibnitz, could possibly become aware of the the existence of other monads, unless miraculously informed. By positively demonstrating the extra-conscious, bodily existence of other human beings, revealed by means of sense-compelled percepts, and by recognizing the imperceptibility and forceless phenomenality of such percepts, and indeed of all mental experience, pure idealism would seem to be effectively refuted, at least as regards the interpretation of the individual conscious content, which it must be confessed is the only one we directly know. But conceding all this for the present, it seems you have not clearly shown that an extra-conscious organism alleged to correspond to the one perceptually revealed, has to be legitimately recognized as the acting, feeling and thinking individual. And by reducing mind to a mere transitory forceless emanation, inferred to issue from an extra-conscious living organism as its functional outcome, you fail, I think, to recognize the supremely important and exalted part mind actually plays in our world.

*Nat.* The perceptually revealed structure of the organism, and its functions as interpreted in terms of motion, are found, as has been epistemologically shown, to be mere transitory symbolical representations of the real extra-conscious organism and its vital activities. A genuine force-endowed substantial entity is necessarily desiderated as permanent matrix of the fleeting conscious content. This has been recognized by foremost idealistic philosophers.

Leibnitz asserts that "a correct view of substance is the key to philosophy." Kant, with his usual penetrating insight, expresses this truth in the following terms: "*Substantiality is the supreme and first principle of nature, which alone secures unity of experience. For without something permanently abiding amid the flux of temporal changes there could be no synthetical connection and apprehension of natural phenomena.*"

The search after the entity which combines in itself the logically contradictory characteristics of this "supreme and first principle of nature," namely permanency and a flux of "temporal changes," was at all times considered the principal task of philosophy. Well, then, just such an entity—the only one in our world—as remains identical, while emanating all through life the changeful and fleeting mental content; an entity that maintains intact its own integrity and efficiency, while emitting in ever renewed sequence the flowing mental phenomena; such a substance as is necessarily assumed by philosophy, is experientially found to be actually given in the living substance, of which all organisms are composed.

What must seem a miracle to pure idealism, and what is logically contradictory to conceptual thinking—namely identity and change combined in one and the same entity—is brought about demonstrably by the natural work of perceptible nature wrought in the living substance. The seeming miracle consists in its structural and functional reintegration to essential identity and efficiency on having suffered the functional disintegration and waste which necessarily accompanies all vital activity. Physically speaking, what is called the life of organic beings is due to this functional reintegration from within repairing functional disintegration induced from without. Such see-saw play of disintegration and reintegration in interaction with the medium is the process which underlies all modes of vital

activity. Hunger and nutrition, fatigue and sleep are subservient to it.

Without such maintenance of identity amid constant change the living substance would irreparably consume itself, and in no two moments could the content of conscious awareness remain identical. There could be no abiding representative view of the perceptually appearing external world, and no sense of personal identity. Past experience could not become structurally organized and memorized so as to appear on future occasions resuscitated in present awareness as remembered. Here we find the valid natural solution of momentous riddles, that have baffled the ingenuity of conceptual thinkers, and to which biology alone has the key.

Memory of acquired experience very evidently depends on modification of what perceptually appears as organic structure. It is the outcome of reiterated function modifying underlying structure, and such specific modification being identically retained so as to issue on incitement into actual awareness as resuscitated past experience. Both physical and psychical education are wholly based on the modifying of structural organization in definite directions. The aim of education is to render new functional acquisitions secondarily automatic, which means to render them capable of being performed without conscious assistance as reaction upon definite actual or remembered inciting influences. The entire organization of the extoderm, sensory, neural, and muscular, is in fact the perceptible result of such vital interaction of the living substance with its environment. Hence reflex-action; instinctive performances, such as are most strikingly displayed by insects; our own confirmed habits; and educationally inculcated abilities. Structurally retained, latently memorized experience was attributed to organic structure by Ewald Hering\* as early

\**On Memory*, by Ewald Hering. Chicago: The Open Court Pub. Co.

as 1870. This was a great step towards a monistic interpretation of the relation of mind and body. But believing the process to occur in the perceptually appearing structure itself, wrongly held to be of material consistency, valid epistemological objections prevented a more general recognition of this profound insight into the true significance of structural organization. It may be safely asserted of all organization of the living substance that it perceptibly represents memorized experience of vital interaction with its environment, by means of which it has been creatively elaborated. Specific organization of the living substance wrought in the sphere of non-mental existence is clearly the work of creative activity operating in depths of being beyond the reach of what we call consciousness. Mind is a final result of such creative activity. After endless phyletic elaboration a microscopic germ, under favorable conditions, develops in unconscious darkness into a faithful reproduction of the parent organism. It issues then into the open world innately provided with the specific structures that underlie its vital functions, physical and psychical. What stronger proof can be needed to render certain to unbiased contemplation that mind is an outcome of vital organization.

The fact that vital activity is instrumental in elaborating organic structure is most obviously demonstrated in the gradual mastering by practice of new feats of physical and psychical skill. The elaboration of the organic structure forms part of the inscrutable creative process to which all elaboration of the multitudinous formations of the universe is due. It is brought about by means of specific modes of combination and interaction among existents that help to constitute the power - endowed, extra - conscious world. The strict dependence of physical and psychical function on the specific vital organization of the perceptible living substance is being more and more precisely ascer-

tained by comparative anatomy and physiology, aided by psycho-physical investigation. Most instructive in this connection is the anatomical, physiological, and especially the pathological study of the neural structures that underlie speech and its manifold defects. Upon the normal organization and function of these structures the rationality of us thinking human beings absolutely depends.

Now, finally, with regard to the "all-important and exalted" part mind is playing in our human world, I think it is recognized rather more profoundly from the naturalistic standpoint than from the idealistic point of view. Naturalism and idealism acknowledge in common that the conscious content is our sole medium of world-revelation. Consistent idealism maintains that this world of consciousness is the only real world. Its revelation means consequently to the idealist its own intrinsic self-significance, without reference to anything outside. Naturalism, on the other hand, maintains that it is a revelation of the presence and practically significant characteristics of an extra-conscious, power-endowed world of interacting real existents, of which our own real being forms part. To naturalism multifold powers of nature conspire to elaborate on our planet all-revealing mind, as the crowning outcome.

The revelation of the extra-conscious world in present awareness is for us human beings of paramount conative as well as cognitive significance. Our entire organism being the result of organically memorized phyletic interaction with the environment, its present conscious memory wells up from unfathomable depths of structurally organized experience. Such experience evinces itself consciously first as organic needs with impulsions to instinctive activities structurally organized to satisfy them in relation to the special environment, to which the organism has become phyletically adapted. In higher structural regions it manifests itself in harmonized experience that imparts order,

unity and beauty to the revelation of the conscious content; further in what Plato called *anamnesis*, and in transcendent intuitions, emotions and aspirations. Hence reverential awe in presence of the inscrutable might that creatively labors with birth-throes of progressive attainments; hence our superindividual worth as bearers of the achieved results of endless vital travail; hence the emotive thrills of soul-stirring music, the faculty of artistic creation, and of all manner of exalted performances by those among us who deserve the name of genius; hence the inspiring swell of symphonious cosmic and social consciousness; and hence the sacred import of family ties, and the ever widening range of altruistic sentiments.

The structures underlying conscious manifestation—our conative propensities included—are so organized as to focus in our present moment of awareness a whole world of gradually accumulated and systematically organized experience. This is accomplished by the issuing in practically simultaneous awareness of a more or less rationalized system of representative mental signs. By recognizing their inner and outer significance there is offered to the percipient for free choice of volitional activity a manifoldness of possible directions, and therefore an opening for overruling mere instinctive impulses. The deliberate choice among these different possibilities presented to purposive actuation determines our more or less rational and ethical conduct in life.

By means of socially gathered experience, consciously concentrated in present awareness, and the volitional choice of a rational and ethical course of action in relation to our physical and social surroundings, progressive organic elaboration towards higher fulfilment becomes inwrought into the structures that underlie the conscious content. The creative process is the same as that by which has been developed the hitherto attained humanization of our orig-



inal animal nature, while concomitantly it has resulted in enriching and enhancing the source, whence our world-revelation issues now into present awareness magically outspread before our glorified vision, the familiar playground of ineffable joys and griefs deeply astir in the warp and woof of our emotional nature. Living structure, as perceptually revealed in the exquisitely minute and significant organization of the human brain, is the veritable embodiment of the perennial, phyletically developed, soul-life, of which we now here are the transitory bearers and beneficiaries.

*Id.* Granting that an extra-conscious world, peopled by extraconscious human beings really exists, as is the conviction of unsophisticated persons, your epistemological and biological interpretation of nature seems plausible. Philosophers, however, unused to give due weight to biological facts, and who have come firmly to believe in mind, intelligence or reason as the veritable power-endowed cosmical entity, will be impressed by it as all too mundane, and its account of laborious world-creation, with mind as the crowning outcome, all too irksomely accomplished to be brought into harmony with divine might, and its free exercise.

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